

IN THE CLAIMS

Please amend the claims as follows:

✓ Claims 1-7 (Canceled)

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Claim 8 (currently amended): An optical disc having a data format, comprising:  
a first logical data structure including at least a user data and control information  
disposed in a first ECC block; ~~and~~  
a second logical data structure including at least an ID information of a physical  
sector disposed in a second ECC block, ~~wherein~~ the first and second ECC blocks are coded  
independently for error correction[[]]; ~~and~~  
wherein the first ECC block and the second ECC block form a single physical data  
structure.

Claim 9 (currently amended): The optical disc as set forth in claim 8, wherein the  
logical data format comprises an error-correcting code having a long distance code (LDC) in  
one direction; and

the user data is arranged in a same direction as the error-correcting code.

Claim 10 (currently amended): An optical disc having a data format, comprising:  
a logical data structure including at least a user data, control information, and ID  
information of a physical sector, the user data, control information and ID information, each

being disposed in a respective blocks ECC block, wherein each respective ECC block [[is]]  
being coded independently for error correction;

wherein each respective ECC block are grouped to form a single physical data  
structure.

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Claim 11 (currently amended): The optical disc as set forth in claim 10, wherein the  
logical data format comprises an error-correcting code having a long distance code (LDC) in  
one direction; and

the user data is arranged in a same direction as the error-correcting code.

Claim 12 (currently amended): An optical disc having a data format, comprising:  
a first logical data structure including at least a user data disposed in a first ECC  
block; and

a second logical data structure including at least a control information and ID  
information of a physical sector disposed in a second ECC block, ~~wherein~~ the first and  
second ECC blocks ~~are~~ being coded independently for error correction;  
wherein, the first ECC block and the second ECC block form a single physical data  
structure.

Claim 13 (currently amended): The optical disc as set forth in claim 12, wherein the  
logical data format comprises an error-correcting code having a long distance code (LDC) in  
one direction; and

the user data is arranged in a same direction as the error-correcting code.

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Claim 14 (currently amended): A method of writing to an optical disc in a data format in which ~~(1) user data, control information, and ID information of a physical sector are disposed each in respective blocks and are coded independently for error correction, or (2) the user data is disposed in a first block and the control information and the ID information of the physical sector are disposed in a second block and each block is coded independently for error correction~~ a logical data structure including at least a user data, control information, and ID information of a physical sector, the user data, control information and ID information, each being disposed in a respective blocks ECC block, wherein each respective ECC block being coded independently for error correction, each respective ECC block is grouped to form a single physical data structures, or a first logical data structure including at least a user data disposed in a first ECC block, and a second logical data structure including at least a control information and ID information of a physical sector disposed in a second ECC block, the first and second ECC blocks being coded independently for error correction, the first ECC block and the second ECC block form a single physical data structure, the method comprising:

one of ~~(1)~~ combining control information from an application program with other control information including a drive ID and a disc ID, and ~~(2)~~ converting the control information from the application program in an optical disc drive; and

one of encrypting and scrambling the user data with the control information thus combined or converted.

Claim 15 (currently amended): A method of writing to an optical disc in a data format in which ~~(1) user data, control information, and ID information of a physical sector are disposed each in respective blocks and are coded independently for error correction, or~~

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(2) ~~the user data is disposed in a first block and the control information and the ID information of the physical sector are disposed in a second block and each block is coded independently for error correction~~ a logical data structure including at least a user data, control information, and ID information of a physical sector, the user data, control information and ID information, each being disposed in a respective blocks ECC block, wherein each respective ECC block being coded independently for error correction, each respective ECC block collectively form a single physical data structure; or a first logical data structure including at least a user data disposed in a first ECC block, a second logical data structure including at least a control information and ID information of a physical sector disposed in a second ECC block, wherein the first and second ECC blocks being coded independently for error correction, the first ECC block and the second ECC block form a single physical data structure, the method comprising:

one of (1) combining control information from an application program with other control information including a drive ID or a disc ID, and (2) converting the control information from the application program in an optical disc drive; and

writing to the optical disc the information thus combined or converted as a block of control data.

Claim 16 (currently amended): A method of reading data from an optical disc having a data format in which ~~(1) user data, control information, and ID information of a physical sector are disposed each in respective blocks and are coded independently for error correction, or (2) the user data is disposed in a first block and the control information and the ID information of the physical sector are disposed in a second block and each block is coded independently for error correction~~ a logical data structure including at least a user data,

B1 control information, and ID information of a physical sector, the user data, control information and ID information, each being disposed in a respective blocks ECC block, wherein each respective ECC block being coded independently for error correction, each respective ECC block collectively form a single physical data structure; or a first logical data structure including at least a user data disposed in a first ECC block, a second logical data structure including at least a control information and ID information of a physical sector disposed in a second ECC block, wherein the first and second ECC blocks being coded independently for error correction, the first ECC block and the second ECC block form a single physical data structure, the method comprising:

one of decrypting and descrambling intra-block control information corresponding to the control information in the data format in the first block while sending in a second format the intra-block control information corresponding to the control information in the data format to an application program.

Claim 17 (currently amended): A method of writing to an optical disk disc in a data format in which ~~user data is disposed in a first block and control information and ID information of a physical sector are disposed in a second block, wherein the first and second blocks are coded independently for error correction~~ a first logical data structure including at least a user data disposed in a first ECC block, a second logical data structure including at least a control information and ID information of a physical sector disposed in a second ECC block, wherein the first and second ECC blocks being coded independently for error correction, the first ECC block and the second ECC block form a single physical data structure, the method comprising:

one of (1) combining control information from an application program with other control information including a drive ID or a disc ID, and (2) converting the control information from the application program in an optical disc drive; and

writing to the optical disc the information thus combined or converted as a block of control data.

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Claim 18 (currently amended): A method of writing to an optical ~~disk~~ disc, comprising:

coding a first logical data structure within a first ECC block for error correction such that user data with EDC is disposed in the first ECC block;

coding a second logical data structure within a second ECC block for error correction separately from the first ECC block such that control information and ID information are disposed in the second ECC block, the first and second ECC blocks being coded independently for error correction;

modulating data of the first and second ECC blocks;

adding a synchronization signal to the modulated data such that the first and second ECC blocks are disposed in one physical data structure; and

writing the modulated data with the synchronization signal to the optical ~~disk~~ disc.

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